

REMARKS

The Final Office Action dated September 30, 2009 notes the following rejections: claims 1-10, 12, 18-27 and 33 stand rejected under 35 U.S.C. § 103(a) over Birru (U.S. Patent Pub. 2002/0037058) in view of Raghaven (U.S. Patent No. 6,115,418); claims 11 and 28 stand rejected under 35 U.S.C. § 103(a) over the '058 and '418 references in view of Johnson (U.S. Patent No. 5,808,574); and claim 17 stands rejected under 35 U.S.C. § 103(a) over the '058 and '418 references in view of Thomas (U.S. Patent Pub. 2004/0013084). Applicant respectfully traverses all claim rejections, and further does not acquiesce to any averment made in the Office Actions of record, unless Applicant explicitly states otherwise.

Applicant traverses each of the rejections for lack of correspondence. As noted in the previous Response, none of the asserted references teaches the claimed invention “as a whole” (§ 103(a)) including aspects regarding, *e.g.*, an adding circuitry for adding the output signal of said feedback filter circuitry to the output signal of said first section, a feedback filter circuitry for performing a linear filtering of a signal derived from an output signal of said second section, and/or a detector circuitry for extracting samples from the output signal of said adding circuitry. Applicant maintains that the '418 reference does not interact to function as a separate section as claimed.

For instance, the teachings of the '418 and '058 references (as applied to each of the rejections) have not been shown to work together and the skilled artisan would be lead away from the combination of disparate teachings. As a general matter, the Office Action's proposed combination relies upon an over-generalization of the teachings of the references and fails to properly consider the technical details of these teachings. “In determining the differences between the prior art and the claims, the question under 35 U.S.C. 103 is not whether the differences themselves would have been obvious, but whether the claimed invention as a whole would have been obvious” M.P.E.P. § 2141.02 (emphasis original). As explained in more detail below, the technical fields of the two references have significant differences and simply combining elements therefrom would result in an unpredictable and/or inoperable combination. As required by M.P.E.P. § 2141, “[R]ejections on obviousness cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.” *KSR*, 550 U.S. at

[418], 82 USPQ 2d at 1396.” The Office Action’s conclusion of operability cannot stand without such a clearly articulated reasoning to explain how a system designed for VSB/OFDM signaling would benefit, or even work with, a system designed for MLT3 signaling over a twisted pair wiring.

For instance a principle goal of the primary ‘058 reference relates to a multi-standard (VSB/COFDM) demodulator (*see, e.g.*, Abstract). The particular details of this multi-standard demodulator relate to complex algorithms designed specifically for a demodulator that is to be compatible with VSB and COFDM signaling. The circuit is designed for both cost-effectiveness and to maintain memory requirements consistent with conventional OFDM decoders. Thus, the ‘058 reference does not suggest that additional circuitry and/or filtering is beneficial or desired. Any such additions would need to be carefully considered relative to the teachings of the ‘058 reference and would not be added as an after-thought.

Turning now to the relied upon aspects of the ‘418 reference, these aspects are specifically designed for a system using a twist-pair transmission line that operates by decoding MLT3 decisions. In this context, Applicant submits that a skilled artisan would not be motivated to make the combination given significant differences in technology and (in absence any articulated explanation in the record) in view of the inoperability of the functions taught by each of the references.

For instance, MLT3 is a three symbol communication system that uses three voltages to encode binary values (*see, e.g.*, Col. 1:40- Col. 2:35 of the ‘058 reference). Col. 10:25 of the ‘418 reference states that the relied upon embodiment shown in Figure 7 includes the slicer 404 shown and described in Figure 5. As explicitly labeled in Figure 5, slicer 404 processes MTL-3 signals to output a decoded MLT3 signal $\{\hat{a}_k\}$. Therefore, MTL-3 signals are expected by the relied upon embodiment shown in Figure 7. No evidence or articulated explanation has been provided to explain how such MTL-3 processing would work with the teachings of the ‘058 reference. The cited embodiment of the ‘418 reference performs decoding based on MTL-3 signals. Accordingly, the MLT3 decoding process disclosed in the ‘418 reference would appear incapable of processing the OFDM/VSB-based (non-MLT-3) output as taught by the cited embodiment of the ‘058 reference. As such, the evidence of record strongly suggests that the asserted combination would render the ‘058 reference incapable of operating for its intended

purpose in the proposed combination. Accordingly, there is not a *prima face* case of obviousness and the § 103 rejection fails. Applicant requests that it be withdrawn.

Notwithstanding the above, and in an effort to facilitate prosecution, Applicant has amended claims 1-11 and 17 to clarify the original intent for the claims. Particularly, these claims have been amended to articulate the various embodiments encompassed by the claims in terms of circuits as disclosed in the Figures and related discussion found in Applicant's specification. Support for these amendments can be found throughout Applicant's published application.

New claims 34, 35, and 36 are believed to be allowable over the prior art largely for the reasons stated above and additionally, claims 34 and 35 are further believed to be allowable because none of the asserted references disclose aspects related to a pseudo noise sequence constructed from symbols. Support for claims 34 and 35 can be found at paragraphs 55-57 of Applicant's published application. Claim 36 is further believed to be allowable because none of the asserted references disclose aspects related to appending a pseudo noise sequence to a scalar output. Support for claim 36 can be found at paragraph 55 of Applicant's published application.


In view of the remarks above, Applicant believes that each of the rejections has been overcome and the application is in condition for allowance. Should there be any remaining issues that could be readily addressed over the telephone, the Examiner is asked to contact the agent overseeing the application file, David Schaeffer, of NXP Corporation at (212) 876-6170.

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